WHAT IS CLAIMED IS:

1. A functional particle preparing method comprising steps of:

treating either one of a hollow particle or a porous particle having a pore on the surface thereof by plasma irradiation under a reduced pressure, and

graft polymerizing at least one type of monomer onto the surface of the plasma irradiated particle by contact between the at least one type of monomer and the surface of the plasma irradiated particle so as to substantially fill the pore of said particle with grafted polymers of said monomer; wherein

during said plasma irradiation, plasma intensity and/or the degree of vacuum are controlled; and

during said contact with said monomer for graft polymerization, at least one of the requirements for monomer concentration, graft polymerization temperature, and graft polymerization time is adjusted to control graft polymerization yield of said grafted polymers.

2. A functional particle having graft polymerization yield of grafted polymers obtained from at least one type of monomer, the grafted polymers substantially filling a pore of said particle, is controlled by adjusting a reduced pressure, plasma intensity and/or the degree of vacuum while treating either one of a hollow particle or a porous particle having a pore on the surface thereof by plasma irradiation, and adjusting at least one of requirements for monomer concentration, graft polymerization temperature, and graft polymerization time while graft polymerizing the at least one type of monomer onto the

surface of the plasma irradiated particle by contact between the at least one type of monomer and the surface of the plasma irradiated particle.

3. A functional particle preparing method according to claim 1, wherein:

a solution having an inclusion to be inserted into said particle is adjusted on a first condition that the grafted polymers substantially filling the pore of said functional particle is shrunk or hydrophilic;

said functional particle is soaked in the solution having an inclusion which is adjusted on the first condition;

said solution having an inclusion is adjusted on a second condition that the grafted polymers of the functional particle is expanded or hydrophobic, and

an inclusion-impregnated functional particle is separated from said solution having an inclusion.

4. A functional particle according to claim 2, wherein the functional particle is an inclusion-impregnated functional particle in which the pore and/or a cavity region of said functional particle are impregnated with an inclusion.

5. A plasma treatment method for uniformly treating all particles by plasma treatment wherein at least one of solid particles, hollow particles, and porous particles, each having a pore on the surface thereof, are fixed in a stacked form to which plasma is irradiated under a reduced pressure while adjusting plasma irradiation intensity and/or the degree of

vacuum according to the size of each gap between particles[BS2].

6. A functional particle preparing method comprising steps of:

fixing at least one of solid particles, hollow particles, and porous particles, each having a pore on the surface thereof, in a stacked form, and irradiating plasma under a reduced pressure while adjusting plasma irradiation intensity and/or the degree of vacuum according to the size of each gap between particles so as to treat all the particles by plasma irradiation, and

graft polymerizing at least one type of monomer on the plasma irradiated particles by contact between the at least one type of monomer and the particles so as to substantially fill the pores of said particles with grafted polymers of said monomer.

7. A functional particle preparing method according to claim 1, wherein said plasma irradiated particle is soaked in a monomer solution or brought into contact with a monomer gas.

8. A functional particle preparing method according to claim 6, wherein said plasma irradiated particle is soaked in a monomer solution or brought into contact with a monomer gas.

9. A functional particle according to claim 2, wherein said plasma irradiated particle is soaked in a monomer solution or brought into contact with a monomer gas.

10. A functional particle preparing method according to claim 6,

wherein said plasma irradiated particle is brought into contact with a cross-linking agent simultaneously with or subsequently to said contact with the monomer.

11. A functional particle preparing method according to claim 1, wherein said particle consists of at least one of an organic macromolecule and an inorganic macromolecule.

12. A functional particle preparing method according to claim 6, wherein said particle consists of at least one of an organic macromolecule and an inorganic macromolecule.

13. A plasma treatment method according to claim 5, wherein said size of each gap between particles is equal to or greater than 0.01 μm.

14. A functional particle preparing method according to claim 1, wherein said seize of each gap between particles is equal to or greater than 0.01 μm.

15. A functional particle preparing method according to claim 6, wherein said size of each gap between particles is at least equal to or greater than 0.01 μm.

16. A functional particle prepared by the functional particle preparing method according to claim 6.

17. A functional particle according to claim 16, wherein said grafted polymers fill said pore at high density.

18. A functional particle according to claim 16, wherein said grafted polymers fill said pore at low density.

19. A functional particle prepared by the functional particle preparing method according to claim 1, wherein said grafted polymers of said functional particle fill the pore at high density.

20. A functional particle prepared by the functional particle preparing method according to claim 1, wherein said grafted polymers of said functional particle fill the pore at low density.

21. A functional particle according to claim 19, wherein the functional particle is a time-release particle in which said pore is impregnated with an inclusion which is released in response to the extent to which the pore is filled with the grafted polymers and/or variations in temperature around said functional particle.

22. A functional particle according to claim 20, wherein the functional particle is a time-release particle in which said pore is impregnated with an inclusion which is released in response to the extent to which the pore is filled with the grafted polymers and/or variations in temperature around said functional particle.